

— LOVE —

Coherent Energy For Our Reality Engines

It is now scientific fact that when we generate the energy of love in our hearts, we resonate with the Earth's electromagnetic field.

In turn, we create positive feedback within our environment, amongst our fellow beings, and through time and space.

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Here we are, each and every one of us, consciousness centred in our very own custom-made psycho-physiological energy vehicle (our body, that is), trying to figure out who we are, where we are and where we are going. It seems, however, that we are missing some obvious answers, or, more correctly, overlooking answers that we already know.

We ponder whether time travel is possible, whilst forgetting that we are doing it right now. Each and every moment of our lives is spent travelling through time and space, our physical bodies doing so in a linear fashion, whilst our minds oscillate between the experience of the moment that is occurring now and the mental projections of possible pasts and futures.

We long to know if there is other intelligent life in the universe, even though surrounded by intelligent and sentient life-forms other than our fellow human time-travellers. How easily we forget that the myriad species that populate the environmental envelope of our living planet—and the planet itself—are all forms of living intelligence.

We wonder whether reality consists of more dimensions than just those we detect with our physical senses, yet we fail to recognise that the 'mental spaces' we construct within our minds to even consider such a question, indeed, the very act of thinking itself, clearly takes place outside the physical dimensions of reality.

It would seem that it is largely our own failure to recognise and accept the reality of our reality that is responsible for keeping us stumbling through life like ignorant fools. Even as we thirst for knowledge, we so often fail to notice that we are swimming in a sea of answers.

'Homo Electromagneticus' and The Infinite Ocean

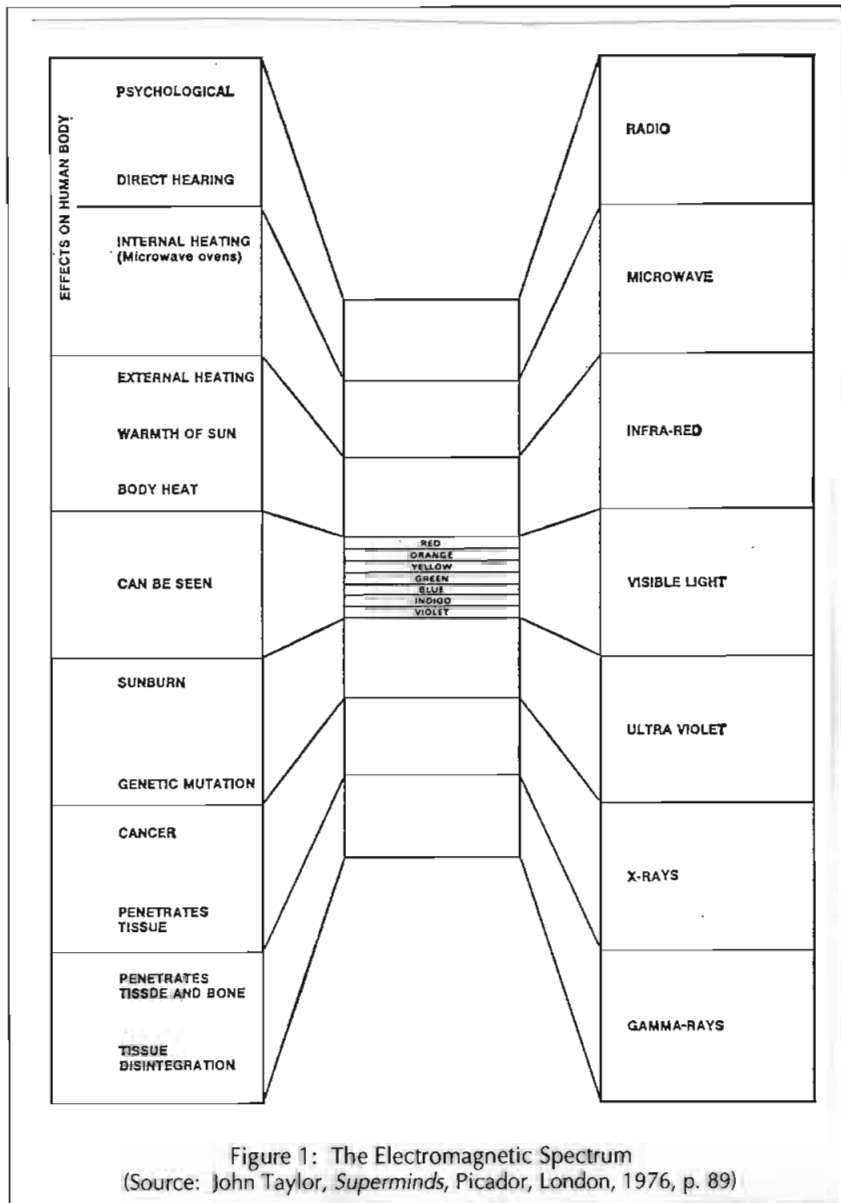
It appears that our capacity as self-aware entities to detect and interact with the various levels of reality with which we're capable of interfacing depends entirely on the manner in which we tune our 'reality engines', and thus the level of performance at which we can get them to operate. Our **reality engine** consists of all parts of our being, including our bodies, brains, minds, souls and spirits. The energy that fuels these engines has been known in various cultures throughout the ages by differing names including chi, prana, kundalini, orgone, od, and so on, but let's simply refer to it as **life-force**.

The concept of life-force can no longer be dismissed as unscientific or as a mere by-product of irrational or mystical thinking. The highly respected two-time Nobel Prize nominee Robert O. Becker, a pioneer in the field of electromedicine, makes this clear when he states:

"...the latest scientific revolution has validated the ancient, preliterate concept of "life energy", not as some mystical, unknowable force but as measurable electromagnetic forces that act within the body as organised control systems. These electromagnetic forces appear capable of being accessed through some of the techniques of shaman-healers as well as through modern, direct intervention with similar forces. These ideas have led to the development of the new medical paradigm, energy medicine, which is currently being slowly integrated into orthodox medicine.

"We have also seen how these control systems relate certain basic functions of living organisms to the electromagnetic environment..., [a] little understood but vitally important link."

The electromagnetic environment to which Becker refers is the primary energy field through which we interact with the material dimensions of reality. We are literally embedded within it, and it within us.



This electromagnetic sea is a complex living matrix comprising a kaleidoscopic array of signals including the Earth's natural geomagnetic field, the electromagnetic fields generated by the weather and atmospheric conditions, energy releases from seismic events within the Earth's crust, the immensely powerful solar wind produced by the Sun, innumerable other sources of cosmic radiation such as energy fields from supernovas and other stars, the cosmic background microwave radiation, and so on.

The interaction of the solar wind—the stream of charged particles from the Sun—and the Earth's geomagnetic field generates enormously powerful electrical currents and electromagnetic waves that resonate within the atmospheric envelope that cradles the planet. As the Earth rotates within its fixed magnetosphere, it creates a daily rhythm in the geomagnetic field which acts as a clock for critical functions within our bodies.

The isoelectric static field that exists between the surface of the Earth and the ionosphere, the lower layers of which are around 80 kilometres above the planet, increases in charge by 200 volts per metre of altitude. This means that the act of just standing upright on the Earth's surface produces approximately 400 volts of electrostatic charge at the top of your head. The electrodynamic field created by the vibrations and movements of our bodies couples us

to the Earth's field with the utmost sensitivity, particularly since both fields resonate at virtually identical frequencies, thus forming a tuned system.

The most minute variations in these environmental energy fields have a direct influence on human psychophysiology and consciousness; and, just as importantly, variations in human psychophysiology and consciousness have a direct influence on these fields. Through this continuous energetic interplay, our consciousness interfaces with the information that informs its reality.

The Reality Engine

What do we mean by the terms **consciousness, environment, reality and information**? Let us adopt the definitions proposed by Robert Jahn and Brenda Dunne of the Engineering Anomalies Research (PEAR) laboratory at Princeton University, in their seminal book entitled, *Margins of Reality—The Role of Consciousness in the Physical World*.² These definitions pertain to a theoretical model of consciousness and its role in the formation of reality that Jahn and Dunne have proposed to explain data generated by over a decade's experimentation.

The term **Consciousness** "...is intended to subsume all categories of human experience, including perception, cognition, intuition, instinct and emotion, at all levels, including those commonly termed "conscious", "subconscious", "superconscious" or "unconscious", without presumption of specific psychological or physiological mechanisms."

The concept of **Environment** "...includes all circumstances and influences affecting the consciousness that it perceives to be separate from itself, including, as appropriate, its own physical corpus and its physical habitat, as well as all intangible psychological, social and historical influences that bear upon it. Thus consciousness and environment engage in the "I/Not I" dialogue of classical philosophy, but with the interface between the two regarded as subjective and situation-specific."

Reality encompasses "all aspects of experience, expression and behavior, [and] is constituted only at the interface between consciousness and its environment, and it is to that reality interface alone that the model pertains."

It is also presumed that the sole currency of any reality is **Information**, "...which may flow in either direction; that is, consciousness may insert information into its environment as well as extract information from it. In this functional sense, information may be constituted by any array of stimuli that the consciousness, or the environment, is capable of sensing or reacting to."

So, according to our hypothesis we can now argue that our reality engine—our consciousness—is engaged in constant two-way multidimensional communication with the infinite energetic field of information in which it is embedded. Furthermore, we can argue that in a very real sense **our consciousness is what it is conscious of, both consciously and subconsciously**. This being the case, it would seem acceptable to conclude that the more coherence there is between the signals we detect externally and those we generate internally, the more coherent our experience of reality will be (increased coherence equals a higher signal-to-noise ratio).

Unifying Physical and Mental Space

We know from our own life experience that the environment in which we exist is both physical and non-physical. The physical world is that part of reality which we 'rationally' perceive as being outside of ourselves and which we sense by means of the signals that are transmitted to our brains via the nervous system, the most sophisticated radar system we know to exist. It tunes into the entire spectrum of electromagnetic frequencies that deliver light, sound, smell, taste and touch to our brains. This remarkable antenna array also unceasingly monitors the internal status of our bodies, detecting minute changes and warning us when conditions are not as they should be, when we need rest, and so forth.

The non-physical aspects of our reality include the mental spaces which our minds experience and generate, such as our mental 'picture' of the world, our memories, our mental projections of the future, and the world of our imagination. These spaces are influenced not only by the forces active within our own psychic structure, but also by the mental forces of those individuals, groups and social structures that impact on our thoughts, and the spiritual forces that motivate or influence us.

If we consider two of the most extreme positions that people adopt regarding the relationship between the worlds of mind and matter, we have a choice between accepting: (1) that all phenomena, including mind and consciousness, are generated by matter and its motions; or, (2) that we are purely spiritual entities who have become trapped in an illusory and essentially 'negative' material plane of existence ('original sin').

The problem with both these arguments is that they fail to provide a framework which encompasses the totality of our individual and collective experience. Indeed, both these belief systems require that we dismiss an integral part of the reality we experience. One seeks to discard our spiritual life, the other our material existence.

The late Professor David Bohm, a leading thinker and possibly the most important theoretical physicist since Albert Einstein, found neither of these positions tenable, and proposed a third option which he supported both experimentally and theoretically. His work has attracted growing support from scientists, theologians and philosophers alike.

In essence, Bohm proposed that our perceived reality (in all its forms) is the manifestation of information that has psychosomatic significance, that is, **meaning**, to us:

"It has been commonly accepted, especially in the West, that the mental and physical are quite different but are somehow related, but the theory of their relationship has never been satisfactorily developed. I suggest that the two are not actually separated; that the mental and the physical are two aspects, like the form and content of something which is only separable in thought, not in reality. Meaning is the bridge between the two aspects.

"In quantum mechanics we have fields of information in the wave function, and perhaps super quantum fields which organize the quantum field itself. These fields are not in space-time but they are in multi-dimensional space, at least mathematically speaking. Space and time are also anthropomorphic concepts. They are meanings."³

Multidimensional Information Fields

We are now proposing that the **reality** experienced by our consciousness is determined by the **information** which our **consciousness** exchanges with its **environment** (which is both physical and non-physical), and that we can only consciously experience realities which have some meaning to us. **E-motion**, which is mediated by our heart, in conjunction with intellect and logic, mediated by our mind/brain, subsequently determines our attitude toward any given experience.

Although scientific reductionists locate mind and memory within the brain and generally argue that behaviour is largely determined by genetic and biological characteristics, such a view is clearly lacking in merit in the face of current scientific evidence. As the maverick English scientist Rupert Sheldrake has pointed out:

"...you could say the present mechanistic approach to biology is like trying to understand the pictures on the screen of the TV set by more and more detailed analysis of the chemistry of the condensers and wires and so on, completely leaving out account of the fact that the pictures depend on transmissions coming from somewhere else. The fact is, of course, that neither radio nor TV nor living organisms can be explained simply in terms of the chemistry and arrangement of their components. But the mechanists will then say, 'Well, we'll admit we can't explain it now, but we will be able to explain it in the future.' They issue undated promissory notes. It's essentially an act of faith in the mechanistic method, not really a strict scientific hypothesis."⁴

Sheldrake's hypothesis of the existence of formative information fields, which he calls **morphogenetic fields**, has been hailed by many scientists as the greatest breakthrough in biology this century. Sheldrake proposes that morphogenetic fields are generated by everything that exists within the universe, including all material forms, thought forms, forms (i.e., patterns) of behaviour, and so on. He suggests that these fields are transmitted and received in a process analogous to the reception and transmission of TV or radio signals.

When we speak of **fields**, we normally mean "regions of energetic influence", but what makes morphogenetic fields different from other fields is that as they are **formative** rather than **energetic**; thus they are "regions of formative influence".

Unlike ordinary fields, the influences of morphogenetic fields do not diminish through space and time but, rather, permeate all of space and time. Their influence exists everywhere and everywhen, like forms attracting information from, and adding information to, like fields, and vice versa:

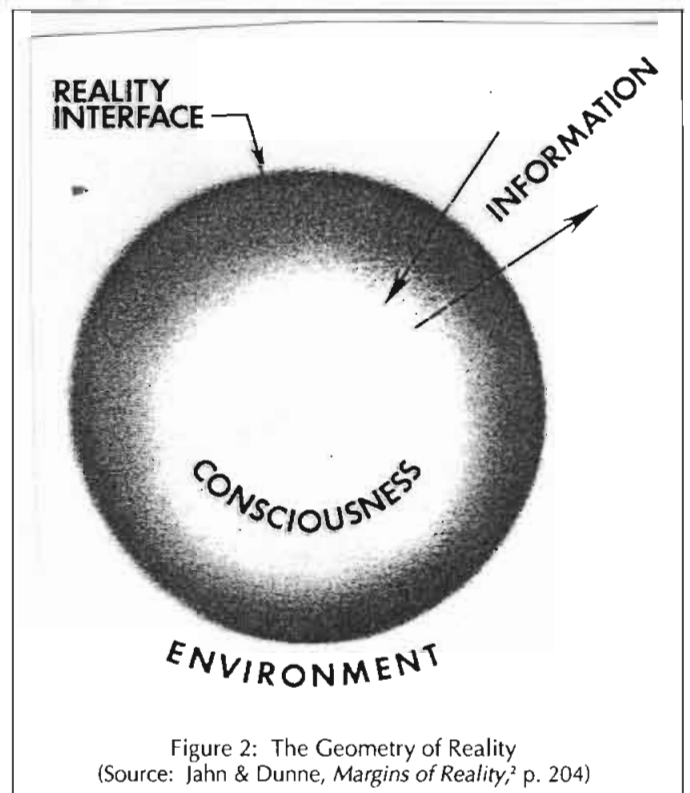


Figure 2: The Geometry of Reality
(Source: Jahn & Dunne, *Margins of Reality*,² p. 204)

"The reason I say that the fields themselves are not energetic is that according to the theory these fields have a non-local character: they are not attenuated by time or space—they act outside of time and space. And if the fields, in their non-local character, involved a transfer of energy, it wouldn't be possible for them to have these properties.

"The fields are always linked to energetic systems—they always interact with energetic systems. The reason I say they're not themselves energy is partly because of the way they're transmitted from place to place (non-locally) and partly because the kind of causation they're involved in is distinct from the kind of causation physics deals with, which is always construed in terms of energetic causation. The whole question of form has a curious relationship to energy; it can never exist without energy or activity, because without something having actuality or activity or energy a form can't have any physical reality."⁵

Here, Sheldrake makes a vitally important point regarding the nature of morphogenetic fields and that is that they are, in the true sense of the term, **metaphysical** fields: they exist outside of the physical dimensions of reality.

The Principles of Experience

According to the theoretical model postulated by Jahn and Dunne, the action of consciousness can be understood as being analogous to the behaviour of the subatomic world as described by quantum mechanics. In other words, consciousness has both particle-like and wave-like properties, and interacts with other subjectively-independent consciousness forms to create larger structures akin to consciousness molecules, and so on. It is influenced by fields, and, as is the case with matter, systems and structures that resonate coherently tend to be stable, whilst those that do not tend to break apart.

According to this model, the **penetration** of our consciousness into the environment, its **range**, is a function of the extent of our attention to it, or of our interaction with it. As our consciousness expands out into the **cognitive plane**—that is, the field of **information** (potential experience which, in itself, is dispassionate)—the **emotional** component of any particular interaction will generate either a positive (approach, attraction) or negative (avoidance, repulsion) state in the participating consciousness. The emotional components in any interaction are expressed as a cognitive **orientation** and may be generated by any or every conscious element participating in the interaction.

The very language we use to communicate descriptions of our experiences—and how we feel about them—suggests the possibility that consciousness itself is imbued with the same properties as space-time and the matter it contains. For example, we often use spatial metaphors when describing our relationship to a person. We might say we are "drifting apart" from them, or that we find it hard to communicate with them as they seem "distant". Conversely, we may feel "close" to them, in which case we may

say that we are "in the same headspace". When describing states of mind we often use terms such as "deep in thought", "way out", "high as a kite", or say that we are getting "into" something.

When covering distance mentally, we might say that we are "taking things in our stride" or are "taking steps toward fixing a problem". We might argue that we are "going over old ground" or "getting into new territory". Whilst sorting out a problem in our minds, we might let our thoughts "wander" until we have worked out our "position", at which point we might take a "stand" on whatever "grounds" we feel are necessary.

Our metaphorical descriptions of time often define how we feel about the "mental space" we are occupying. When we are absorbed by something we often find that "time flies", and when we are bored with our thoughts "time drags". In highly stressful or emotional situations we might say that "time stood still". When we feel overloaded we might say that we need "time out", or if we are annoyed at somebody's repetitive behaviour we might accuse them of doing the same thing "time after time". We may suggest a solution that will do "for the meantime" or "for the time being".

We often describe our view of reality in terms of mass. For example, we might find a situation "really heavy", in which case it

may "weigh us down". We might judge someone to be "light-weight" or "lighthearted". When we have a lot to do, we describe our workload as "massive". Situations are often judged by us to "matter" or "not matter", and a person may feel "burdened" by an important "matter" when they realise the full "gravity" of its consequences.

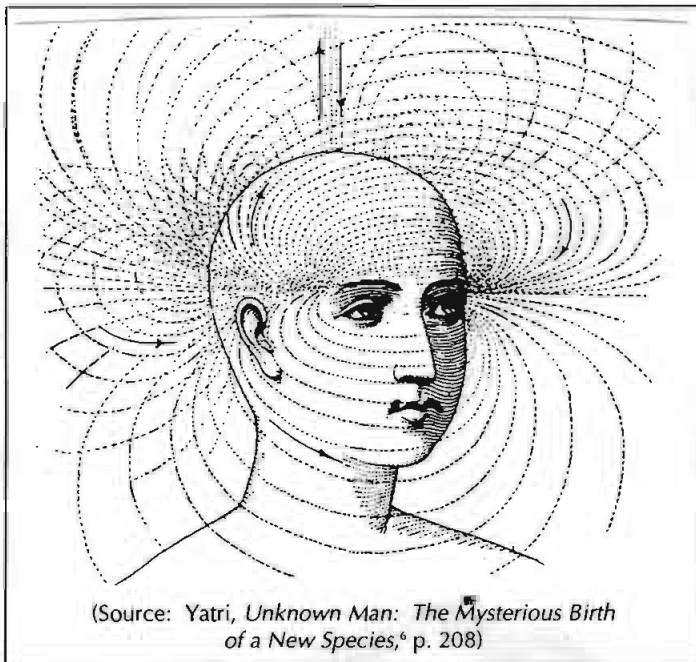
We also describe our thoughts in terms of charge, using expressions such as being "attracted to" or "repulsed by" something or somebody. A situation may become "highly charged" depending on whether we perceive other participants as having a "positive" or "negative" reaction to our own "currents of thought". This may lead to the issue becoming "polarised", at which point our emotions may

get "excited" and "sparks" may begin to fly. Then again, we may find ourselves interacting intimately with someone when we sense "electricity" between us.

The important thing we need to recognise is that our mental reality shares many of the properties of the physical world, once again supporting the hypothesis that they are in fact different manifestations of the same forces. It is also important to recognise the role that E-motion plays in the interaction between consciousness and reality.

Speaking The Universal Language

All systems of communication speak a single language, the language of form. Speech, for example, is an audible form; writing, a visual form. To consider the infinite versatility of **form**, we need only consult the dictionary to see just how many facets of reality this word describes. Form not only suggests the shape of a thing or person: it also implies the structural conditions that determine the shape and mode in which that thing manifests. For example, water can take **form** as a liquid, a solid or a vapour depending on



(Source: Yatri, *Unknown Man: The Mysterious Birth of a New Species*, p. 208)

the conditions under which it is **formed**, yet it still remains H₂O.

Form also describes the arrangement or relationship of the parts of a whole to that whole. For example, music, art and literature all consist of individual **forms** that come together to create a larger whole. The act of bringing together and shaping those components also takes a **form**, that is, an order or method. When the resultant **formation** is pleasing to our senses, we might then describe it as having "a pleasant form".

Thoughts take **form** in our minds which are themselves composed of energetic psychic structures. When these structures are firmly rooted within our psyche, we might refer to them as "rigid belief systems". But when they are flexible and responsive to the interplay between our consciousness and environment, we tend to think more creatively. The most imaginative humans are sometimes called "free-form thinkers" for this very reason.

There are numerous other examples we could use to demonstrate the notion of **form**, but, as we can already see, form is both an action and the thing upon which it is acting; hence, any set of conditions which we attempt to express scientifically as a **formula** should be understood not only as a description of the **formative** conditions under which a thing is **formed**, but also as a description of the **form** itself.

Now if we can just step back momentarily and consider the full implications of the concept of **form**, we can only conclude that objects and events—and the forces which bring them about—are ultimately all expressions of one and the same thing: energy in its variety of forms. This is why physicists and theologians alike have proposed that an all-encompassing and infinite field of energy and intelligence underlies all phenomena, including the Universe itself and all the matter, life and consciousness it contains. Scientists refer to it as the unified field; theologians know it as God. Under two different names, both are referring to an ultimate holistic system of systems.

The experimental evidence provided by science, and the experience of our own lives, demonstrates to us that specific energetic relationships bring about the manifestation of specific forms of matter, specific forms of thought, specific states of being, and so on. Therefore, if we can come to a better understanding of the language of form—which is the language of relationships—we should be able to bring more desirable states of reality into being.

The Heart of the Matter

The questions we must now consider are: Where is it that our consciousness interfaces the experiential worlds of physical reality and mental reality, the worlds of matter, mind and meaning? Where is it that we ultimately attempt to reconcile our thoughts with our experience of the world we perceive 'out there'? It is, of course, in our heart—the control centre of emotion, the part of us we refer to when making all our most important decisions and judgements, and the part of us with which we experience the most intense sensations generated by any reality we might encounter.

Without reference to our heart, both our minds and our bodies can quickly become unhooked from reality. The moment we ignore the feelings in our heart, the signals we receive and generate start to become incoherent, and sooner or later we begin to function in way that is destructive both to ourselves and our environment.

We all know the major role the heart plays in keeping our body functioning, but few of us realise that the heart also secretes a

powerful peptide hormone (ANF) which affects various regions of the brain including the hypothalamus and the pituitary gland, which plays a critical role in the release of growth hormones to the body and the control of metabolic function. In esoteric traditions, the pituitary gland also enjoys special spiritual significance:

*"That which is termed the pituitary is the Seventh Seal, it is Holy and Divine. It possess within Itself that which is termed a hormone structure that, through desire, opens itself and lets the hormones flow through the brain and the mouth of the pineal which is the Sixth Seal, the door to the Seventh. In the flowing of these hormones, it activates another part of that which is termed the divine receiver, the brain, to allocate itself to accept a higher thought frequency called unlimitedness. The higher thought emerges upon the brain and, in the specified area, through the door of that which is termed the divine Seventh, fills the entire brain cavity with a different electrical frequency circuit."*⁶

Is it possible that the generation of specific signals—specific waveforms—in the heart activates higher functions in the brain and thus opens the doorway for consciousness to increase the range and quality of its experience?

We know that energy is information; so, logically, the place in the body where we find the strongest electromagnetic signal should be the most powerful source of information. Once again, we find that the heart is that source. Similarly, the heart generates the strongest sounds in the body.

As the heart ejects blood from its left ventricle into the aorta, the resulting pressure waves collide with their own echoes travel-

ling back down the aorta, creating a sonic interference pattern which radiates right through the body. When you stop the sound of breathing (by holding your breath), the heart's sonic pulse and its echo synchronise and resonate the entire body at a frequency around seven cycles per second⁷, the same frequency at which the Earth's electromagnetic field resonates. This pulse also gently vibrates the brain as it floats amidst the thin layer of fluid within the protective membrane called the *dura mater*, ordering the fluids inside the brain's ventricles.

Likewise, the electromagnetic waveforms generated by the heart are also distributed throughout the entire body, directly influencing our brain, the nervous system, the endocrine glands, and our immune system. By generating the right frequencies within the heart, we can quite literally bring it, our entire bodies and our minds into resonance with the Earth's own heartbeat.

Recent research conducted at the Institute of HeartMath in Boulder Creek, California, demonstrates that the E-motion we call love is the most beneficial one to hold in the heart for true health in body and mind. One paper from the Institute, entitled *ECG Spectra: The Measurement of Coherent and Incoherent Frequencies and their Relationship to Mental and Emotional States*, concludes:

"From the results obtained in this research, there is a correlation between the subjects' mental and emotional states and the frequency spectra of the ECG [electrocardiogram]. When the subjects sincerely felt love, care or appreciation, the spectra changed to a more ordered and coherent frequency distribution. On the other hand, when the subjects were in a state of frustration, worry or anger, the ECG spectra were disordered and chaotic. Heart frequencies create an electromagnetic field which is distributed throughout the body. The degree of coherence in the heart is the

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major determining factor for coherence in the rest of the body, suggesting the possibility that ECG frequencies have profound effects on overall health and well-being. Psychological evaluations confirmed that subjects who produced higher percentages of coherent ECG frequencies were better able to manage their mental and emotional natures and their reactions to stressful events in day-to-day life.¹⁷

The other important factor is that the influence of these signals is not limited to the area within our own bodies. When we generate love, the signals literally resonate and couple with the Earth's geomagnetic field and travel right around the world. They also radiate out into space and through time at the speed of light, and are recorded outside of space and time in the morphogenetic fields. As like attracts like via the morphogenetic fields, the more that we generate the coherent E-motion of love within us, the more easily and the more often that E-motion can be received and regenerated by other humans and other forms of consciousness. This is not mystical madness. Science is finally confirming what most of us already know in our hearts but usually fail to recognise or simply overlook when it suits us.

Now is the time to recognise that the emotions in our hearts, the thoughts in our minds, our actions in the world are recorded for eternity and are forms that inform and influence reality—not only our own, but everybody and everything else's as well. We may sense that our collective reality is headed towards an abyss on its present course, but just imagine how we could transform that

course simply by taking on the responsibility to strengthen love's signal within our own hearts and minds.

Now is the time to replace the 'sixties adage, "Turn on, tune in, drop out!", with a new one to help us through to the next millennium: "Tune up, turn on, wake up!"

Footnotes:

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2. Jahn, R. G. and B. J. Dunne, *Margins of Reality—The Role of Consciousness in the Physical World*, Harcourt Brace Jovanovich, New York, USA, 1987, pp. 203-204.
3. Weber, Renée, "Matter as a Meaning Field", in *Dialogues with Scientists and Sages*, Routledge & Kegan Paul, London and New York, pp. 106 and 116.
4. Weber, Renée, "Morphogenetic Fields: Nature's Habits", in *Dialogues with Scientists and Sages*, op. cit., p. 77.
5. *Ibid.*, p. 80.
6. Yatri, *Unknown Man: The Mysterious Birth of a New Species*, Simon and Schuster, New York, USA, 1988, p. 212-7. Bentov, Itzhak, *Stalking the Wild Pendulum: On the Mechanics of Consciousness*, Bantam, New York, USA, 1977, pp. 33-36.
7. McRaty, R., M.A., M. Atkinson, and G. Rein, Ph. D., *ECG Spectra: The Measurement of Coherent and Incoherent Frequencies and their Relationship to Mental and Emotional States*, Institute of HeartMath, Boulder Creek, CA, USA, 1993.

(Note: For more information on the relationship between sacred geometry, energy, personal and planetary well-being and coherent E-motion, see: Daniel Winter and Friends, *Alphabet of the Heart—Sacred Geometry: The Genesis in Principle of Language and Feeling*, Crystal Hill Farm, Eden, New York, USA.)

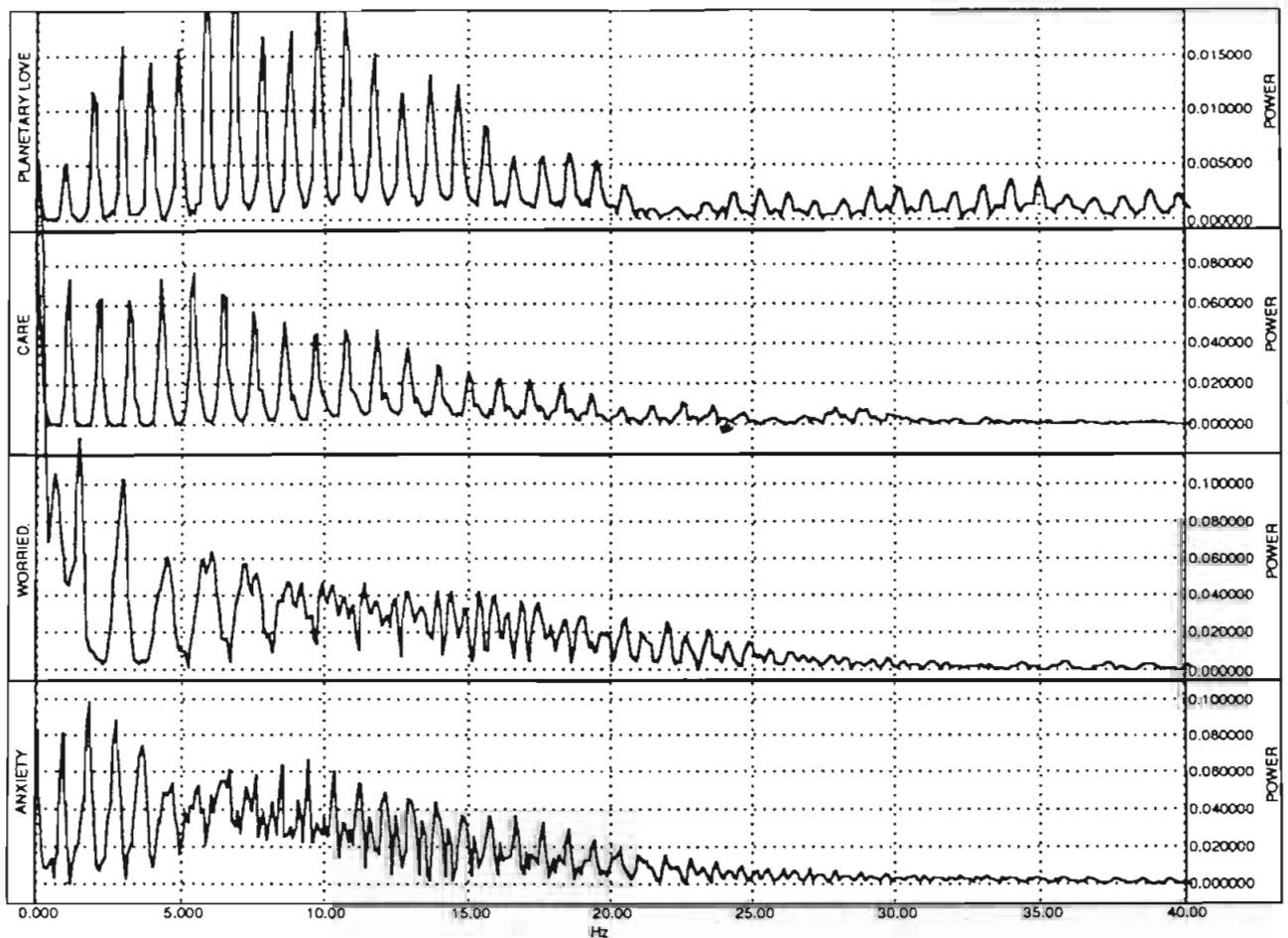


Figure 3: ECG Spectra of subject exhibiting different emotional states. The top two, planetary love and care, are coherent. As the subject changed states from love to worry or anxiety, the spectra became increasingly incoherent as shown in the bottom two recordings. (Source: Institute of HeartMath, Boulder Creek, California, USA, 1993)